AVICULTURAL MAGAZINE

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Mountain Blue Robins
Adult birds and young.

AVICULTURAL MAGAZINE

THE JOURNAL OF THE AVICULTURAL SOCIETY
AND THE AVICULTURAL SOCIETY OF AMERICA

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THE BREEDING OF THE MOUNTAIN BLUE ROBIN

(*Sialia currucoides*)

By KENNETH A. NORRIS (Purley, Surrey, England)

Owing to the very strict protection of the Blue Robins in their native countries of Canada and North America, these birds are familiar only to the few aviculturists in England who have been fortunate enough to procure the few specimens which have so rarely been imported during recent years. Of the three species, *Sialia sialis*, *S. mexicana*, and *S. currucoides*, the latter is probably the least known.

Its range includes Western North America and Canada, from the West Coast east to Manitoba and north to the Yukon and Mackenzie Valley. During the past few years it has been extending its range eastward and is said now to be more or less well established as far as central Manitoba.

According to Taverner's *Birds of Canada*, its choice of nesting sites is very varied and it is equally at home in the hollow cornices of buildings, dead tree stumps, old Woodpecker holes in telegraph posts, or in nest-boxes hung about the buildings and trees of the prairie homesteads. In wild barren country it is found nesting in crannies in the rocks and cliffs—in fact, its only requirement seems to be a suitable hole to shelter the nest, irrespective of where it may be.

Mr. Reid-Henry's excellent portrayal of a pair of adult birds and one of their young renders a detailed description of their plumage unnecessary. It will be seen that they have much longer flight feathers and tail than our own familiar Robin, the legs being comparatively short and set well back on the body. As a result, their movements on the ground are awkward and the wings are used constantly to assist progress.

When resting on some favourite post or branch they assume an upright posture, the legs and feet being completely covered by the lower breast feathers, and in this position they more closely resemble

the Flycatchers in appearance. They will " hawk " after any flying insect which may come within range and seldom fail to catch a mealworm thrown into the aviary. Their remarkable agility on the wing, combined with their general structure and rather flattened beaks, suggests that, in a natural state, they must subsist largely on insects taken on the wing.

I was fortunate enough to receive an adult pair of these very lovely birds in June, 1952, and, as is my usual practice with new arrivals, they were housed in a large cage in the bird-room for the first month.

They settled down quickly and took readily to insectivorous food with the addition of a few gentles and six mealworms each, per day.

As weed seeds and soft fruit are said to form an important part of their diet in a wild state, these were also supplied at first, but the birds have shown no inclination even to sample them and they have since been discontinued.

In July they were moved to an outdoor, unheated aviary, measuring 9 feet by 5 feet, of which 3 feet is entirely enclosed to form sheltered sleeping quarters, the remainder being open wire flight, fitted only with artificial perching. This aviary they shared with Cedar Waxwings, an American Crossbill, and a pair of Golden Pheasants, but as the latter soon formed the habit of flying up to the various food dishes, either upsetting them or consuming all the food before the smaller birds had fed, they were subsequently removed.

The Robins remained in this aviary throughout the autumn and winter. Early in the following April the hen commenced to carry nesting material to an open-fronted nest-box measuring 6 inches by 4 inches by 6 inches, which was hung in the open flight, beneath the overhanging eaves of the sleeping quarters.

From past experience I have found it important, if success is to be achieved under artificial conditions, not only to provide suitable nesting sites but also the actual materials with which a species is accustomed to build, especially for the lining of the nest. A striking example of this had been provided by the Cedar Waxwings, which had nested in the same aviary the previous year. These birds, which had arrived in immature plumage, proved to be inexperienced in the art of nest construction, even failing to bind the materials successfully in a shallow woven cradle that had been provided as a foundation. As the hen was obviously on the point of laying, I decided to assist by supplying a " pre-fab ", using for this purpose a very substantial Robin's nest from which the young had recently flown.

This the Waxwings accepted with every sign of satisfaction until they discovered the hair lining which was evidently not according to Waxwing specification, for together they stood on the edge of the nest and literally ripped it out. They then quickly collected a quantity of small scarlet feathers shed by the Golden Pheasant and with these

formed a new lining to the nest in a remarkably short time, the first egg being deposited on the following day.

I was unable to find any description of the Blue Robin's nest in the books I had available and as soon as it became apparent that the hen intended to build, I supplied a variety of materials, including dead leaves, moss, fine roots, strips of birch bark, partly dry grass, small twigs, short lengths of soft hemp string, hair, and feathers. From this assortment she selected only the grass with which she formed a flimsy nest, lining it with finer grass.

She laid four days after commencing to build and incubated steadily for sixteen days, after which she left the nest and on investigation I found it to contain only one pale blue, unmarked egg, which was infertile.

This was no surprise as the cock had completely ignored the whole proceedings and had, in fact, displayed some hostility to any close approach of the hen during the early stages of building.

During the second week of May, however, he started to display, perching near the hen, in a crouching position with wings held partly extended and fluttering, thus showing to full advantage the brilliant blue of his upper parts, or hovering before her, with a blade of grass in his beak. Between displays, he constantly sang, or perhaps it would be more accurate to say " warbled ", for so soft and sibilant were his notes that often only the movement of his throat revealed that he was singing.

Whenever mealworms were thrown into the aviary, he dexterously caught them in the air as a Flycatcher would take gnats or other winged insects and then, hovering directly above the hen, would offer them to her. Should she fail immediately to accept, he would gently tap her on the back with his feet. If she still failed to respond, he would then alight beside her and thrust the insect towards her until she took it in her beak. Even then it would sometimes be passed backwards and forwards several times before the hen finally swallowed it, and it was not until she had accepted three or four insects in this way that the cock would himself feed. Thus encouraged, the hen again commenced building, assisted occasionally by the cock who, however, did little more than carry nesting material which he passed to her at the entrance to the box, never himself entering or attempting to take part in the actual construction of the nest.

On 19th May she commenced incubation and although she usually left the nest when I visited with mealworms, she invariably returned almost immediately, nor did she ever appear when anyone else approached the aviary.

On 2nd June it became evident that young had hatched and both birds started carrying mealworms and gentles to the nest, having first prepared them by well chewing them between their mandibles until

they were limp and lifeless. Up to six were carried in the beak at a time and were very quickly distributed.

Dr. A. G. Butler, describing his success in breeding the Eastern Blue Robin, *S. sialia*, states that his birds never gave the young food which was not partially digested, feeding them from the crop, on a mixture of insects, vegetable, prepared insectivorous food, and also half digested and softened seed (*Foreign Birds for Cage and Aviary*, Part I, p. 25).

My birds *never* swallowed the insects and although they took prepared food readily before the young hatched, this was completely ignored when feeding commenced. Only live food was then taken and was fed by the beak and not by regurgitation.

Feeding continued for ten days and then suddenly ceased and the parent birds appeared to lose all interest in the nest. Examination of the nest-box and a thorough search of the aviary failed to reveal any signs of the young birds. On the following morning I noticed that the box was almost completely filled with hay and found that mice had taken possession, no doubt having dragged out the young birds and carried them below ground during the previous night.

Towards the end of June the cock again started to display and within a day or so the hen was building in a similar box, hung in the sleeping quarters, in a position which was fortunately inaccessible to mice.

On 2nd July she commenced incubation for the third time and on the 17th July both birds were again carrying food to the nest.

Until now the Robins had taken little notice of the other inmates of the aviary but possibly due to the loss of their previous brood, they suddenly became aggressive, particularly towards the American Crossbill. They continually drove it from perch to perch until the cock finally succeeded in pinning this unfortunate little bird to the ground where it commenced systematically to tear the feathers from its back, and would undoubtedly have killed it had I not been in time to separate them.

Having removed the Crossbill to another aviary, I thought it advisable also to remove the pheasants in order to ensure that the Robins should have all the food they required but the Waxwings were allowed to remain as, strangely enough, these birds were still completely ignored by the Robins nor did they ever attempt to approach the nest or interfere in any way.

After the birds had been feeding for a week, I ventured to look into the nest when the parents were out in the flight collecting insects, and found it to contain three small young, clothed in dense black down, relieved only by the conspicuous yellow line of the gape.

At this stage, the hen began to display resentment towards the cock if he approached the nest and although he made desperate, and occasionally successful, attempts to reach the young, she finally refused to allow him even to enter the sleeping quarters.

During the second week I again looked in the nest, to discover that the young had made quite remarkable progress and were well fledged, the colouring being very similar to that of the adult hen except that the breast was heavily spotted.

On 7th August I noticed the three young sitting, crowded together, in the entrance to the nest box. As soon as they saw me they slipped back and crouched in the bottom of the nest, but on the following morning one was on a low perch in the open flight and in the early afternoon it was joined by the other two.

As soon as the young left the nest, the hen again allowed the cock to approach them and both birds fed them at frequent intervals, no longer troubling to prepare the food but thrusting the wriggling insects well down the youngsters' throats. If an insect was inadvertently dropped, it was immediately retrieved by one of the parents and again thrust into an open beak and it was particularly interesting to note with what care each young bird was fed in turn. On no occasion did I see one bird receive a double dose, however clamorous or persistent it might be.

Just a week after the young appeared in the open, they commenced themselves to pick up insects, deliberately dropped in front of them by the parents and very soon afterwards became quite independent although the old birds continued to shepherd them into a sheltered position each night.

On 12th September and without any perceptible moult, intense blue began to appear on the wing butts of two of the young birds, and on 15th September I noticed blue also appearing on the crown of the head, immediately above the beak, followed a few days later by odd blue feathers on the breast.

The third bird remained unchanged in colour but the spotting of the breast began to fade and it was now obvious that there were two cocks and a hen. At this stage fighting commenced between the old and the young cocks and although I imagine that the adult bird was the aggressor in the first instance, the young soon became equally ready to start trouble, especially at feeding time. The old birds were already moulting heavily and I therefore caught up the young and placed them in a large cage in the bird room.

As soon as the young had been removed the parents resumed their normal daily consumption of prepared food and the live insect supply was reduced again to a small number of gentles and six mealworms each.

I subsequently disposed of one young cock but the remaining pair are still together and are doing remarkably well. The plumage of the cock has changed little since he was transferred from the aviary and it is now apparent that he will not assume his full, adult colouring until he undergoes his first complete moult but the young hen is practically indistinguishable from the old bird. Until recently they refused all

food except live insects, but are now taking a certain amount of insectivorous mixture and occasionally a very little finely chopped date.

During the whole period of nesting and rearing, nest sanitation was strictly observed, the excreta being removed by the parents and all deposited on a cross-bar of the flight door, the most distant point from the nest to which the birds had access. Even when the young left the nest, this habit of "clearing up after a meal" persisted for a few days, the old birds collecting and removing the excreta from below the perch on which the young were sitting.

Gentles and mealworms, in equal proportions, were the only live food supplied from the time of hatching until the young were removed from the aviary and were consumed at the rate of four ounces per day, an average of 1,020 insects a day continuously for nearly eight weeks and this by an abnormally small brood!

Under natural conditions, a brood probably consists of four to six young and I imagine the birds would be double brooded and might even produce three broods in a favourable season.

There can be no doubt, therefore, that the benefit derived from the presence of these and other small insectivorous birds in agricultural and fruit growing areas is inestimable and the strict protection afforded them by the Governments of Canada and America is more than fully justified.

* * *

NOTES ON THE CYANISTIC PHASE OF THE INDIAN RINGNECK PARRAKEET

By David West (Montebello, California, U.S.A.)

Colour variations among normally green birds do not seem to be of a too rare occurrence. The amazing little Budgerigar occurs in dozens of colours, and other birds with large areas of green plumage which appear subject to variation are Masked and Nyasa Lovebirds and, in addition, there are Plumheads, lutino and blue phases of the Alexandrine, and lutino and blue phases of the Indian Ringneck Parrakeet.

The earliest references to this colour phase appear in the 1920's in the Avicultural Magazine and Hachisuka's *Variations Among Birds*. From published information it appears that at least one, and more likely two, blue examples of the Indian Ringneck Parrakeet were kept by a Mr. M. G. Mallick, of Calcutta, during the 1920's. From conversations with people who saw these birds in India it would appear that both birds were cocks, were kept in individual cages, and that no attempt was made to breed from them in order to perpetuate this colour phase.

Continuing chronologically, the next reference to blue Ringnecks is the 1941 record of the example which Mr. Sheffler raised in his Arizona aviary. This bird was reared from normal parents, and it was a great tragedy that it was killed when only a few weeks old when Mr. Sheffler tried to catch it for removal to other quarters. Although the parents of this bird were kept for twelve years they never again repeated their 1941 success. Mr. Sheffler recently told me that this bird, like those currently in England and in California, was powder-blue in colour.

After the end of World War II there is a notation in the AVICULTURAL MAGAZINE of an English soldier seeing a blue Ringneck among a flock of green ones while on duty in India. An American dealer also told me that during a 1949 trip to India he saw a tame and talking blue Ringneck which belonged to a poor Indian farmer. Although repeated attempts were made to secure the bird nothing eventuated and the dealer was forced to give up the idea of securing this bird. There is always the possibility that this bird might have been useless for breeding purposes if it were too tame.

During 1950 two blue Ringnecks were offered by an Indian dealer to a Californian fancier for the sum of $1,000. At this time it was believed that they were the only pair in captivity anywhere in the world. As if the price were not enough of a drawback American importation regulations would have made it virtually impossible to secure the birds anyway, so rather regretfully a negative answer was sent back to India.

Although I have no valid information from the late Duke of Bedford it would appear logical that the pair of blue Ringnecks he secured from India through the efforts of Mr. A. Ezra in 1950 were this same pair offered to the Californian fancier. The Duke mentions in an article that this pair consisted of an adult male and a young female and that neither bird appeared to have been in captivity very long. One cannot help but wonder if these birds were wild caught, or is there someone in India breeding blue Ringnecks?

Certainly the pair sent to Woburn did very well for they reared a total of eleven young in three seasons. The actual numbers were as follows; in 1950 an interest was shown in the nest but the female was too young and nothing eventuated; in 1951 three were reared; in 1952 four were reared; and in 1953 another four were reared. In the 1953 season a blue cock mated to a lutino hen also reared two green youngsters.

The possible colour variations made possible by correctly mating the lutino and blue phases will certainly open a new field of endeavour for the aviculturist. An albino Ringneck is now a distinct possibility and should be a really lovely bird if it retains the red bill and the pink ring about the neck. Now that the Keston Foreign Bird Farm has

succeeded in breeding a nearly pure lutino Alexandrine (by mating a female lutino Ringneck to a cock Alexandrine and then mating the split sons back) the same method could be used to produce a blue Alexandrine and then with these lutino and blue Alexandrines an albino Alexandrine could be anticipated.

At the present time there are just thirteen blue Ringnecks in captivity. Of this number four birds are here in California, eight are in England, and one on the Continent. One can only hope that they will all continue to prosper and that soon their present " unlucky " number will be a much higher figure.

* * *

Supplementing Mr. West's notes, there are nine blue Ringnecks in this country. If his information regarding one being on " the continent " is correct there are therefore more than the " unlucky thirteen " in captivity.

When the late Duke of Bedford's collection was so lamentably dispersed, the original breeding pair passed into Mr. Boosey's care. The 1950 trio, one hen and two cocks together with the two 1953 green young bred from a blue cock and lutino hen were acquired by Mrs. Clark, of Bromsgrove, and the four remaining immature birds came to Ballinger.

It is hardly necessary to say that every effort is being made to establish this magnificent colour variation. This desirable goal will take time to achieve in view of the lengthy period taken to attain maturity and the difficulty of sexing birds in the meantime. There is also the desirability of introducing unrelated blood which of necessity must either be normal or lutino strain since there are no other blue birds available so far as is known.

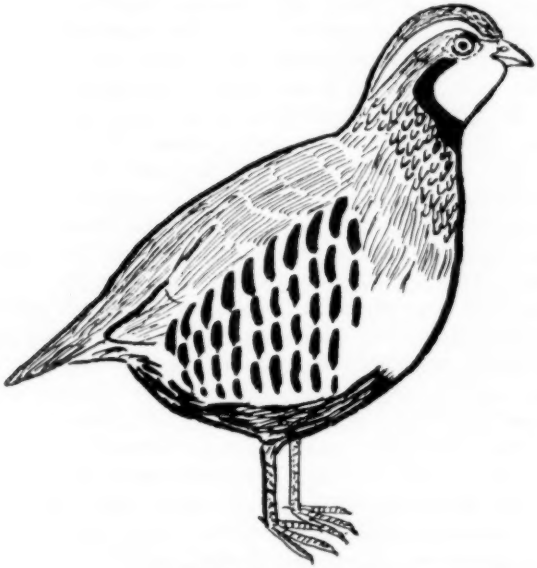
One other point is worthy of mention, namely that in 1934 our president, Mr. Ezra, successfully reared a blue Alexandrine. The parents were a blue cock mated to one of his daughters by a normal hen.

E. N. T. V.

* * *

NOTES ON CAPTIVE RED-LEGGED PARTRIDGES

By Derek Goodwin (Virginia Water, Surrey, England)



ALECTORIS RUFA

Upper parts brown, wine-red tinge on hind-neck. White superciliary stripe.
Throat white, bordered black, with laced pattern extending from black border.
Breast blue-grey, belly deep golden buff.
Flanks barred chestnut, black and white on blue grey ground.
Bill, legs and eye-cere red, eyes brown.

Although, like most bird-watchers, I had long admired the beauty of the Red-legged Partridge, *Alectoris rufa*, it was by a pure accident that I first started keeping these birds. Wandering with a friend along an overgrown bank at a local sewage farm one morning in late July, 1952, I nearly stepped on an incubating Red-leg. As it flew off it became entangled in some weeds and struggled frantically for some seconds before it succeeded in tearing itself free. On our return at 6 p.m. we were, therefore, hardly surprised to find it had not returned. We decided to give it another 24 hours, and in the meantime I inquired frantically, but in vain, for a broody bantam, and I had to use a large black hen, the only broody obtainable. The following evening the Partridge's nest was obviously deserted. One of the eggs had been removed, and was lying—unharmed—several

yards away. I took all eight, and put them under the hen, and after four days they started to chip. Soon two had " caved in " with the weight of the hen, and all would doubtless have been crushed, but by good luck a broody Cochin bantam was procured just in time. This bantam had only begun to sit some eight hours before, but she reacted appropriately to the hatching eggs, sitting " lightly " and " talking " tenderly to the unhatched chicks. Of the eight eggs, five hatched, and the two somewhat flattened ones—from which, of course, the chicks could not extricate themselves—I successfully opened at the correct time. The eighth egg contained a dead chick. The net result was seven strong and healthy chicks, which, as the well-developed eggs had been left deserted and cold for some thirty-six hours, was rather remarkable. The newly hatched chicks were the most delightful objects, in soft buff and brown down, their rather short and sturdy legs being dull yellow, spotted with blackish, a rather unusual colour scheme. I had feared that the chicks might be as hard to rear as Common Partridges, which are said to be even more difficult than the pheasants of the *Phasianus* group. Luckily this was not the case, and the young Red-legs proved as easy to rear as Golden Pheasants.

They were kept on the lawn in a pen, which was moved daily. At first the young Partridges could slip in and out through the one-inch mesh, and two vanished at this stage, doubtless carried off by some predator. At about five weeks old the young birds had begun to find the narrow confines of the pen irksome. They were liable to panic at a sudden approach (especially if one's lower garments or footwear was at all unusual)—and spent much time running up and down the wire. They were then moved to a large aviary (about 20 feet by 40 feet) together with their foster-mother, and within a few days became exceedingly tame and unafraid. A few weeks later the bantam was taken away. The Partridges, although for some time they had appeared to have little regard for her, or she for them, were much demoralized by her disappearance, and ran about trying to get out, stopping every few minutes to give the rally call. After a couple of days, however, they appeared to have quite forgotten her.

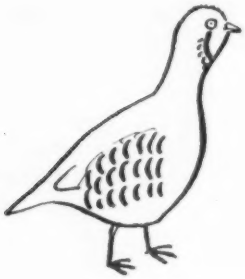
In mid-November three of the five became ill, their faces swelled up and frothy mucous ran from their eyes and nostrils. This would appear to have been similar to, and probably homologous with, the eye-disease described by Hastings (1953). At all events it seemed to have been due to lack of Vitamin A, and giving the birds halibut oil speedily cured them. The whole question of feeding I will deal with later on.

From the fact that three of the birds were noticeably bigger and heavier than the others, I rightly guessed that they were three cocks and four hens. I gave away a pair and kept the other five together

in a large aviary, intending to separate them in early spring, when I expected they would start to form pairs and to quarrel among themselves.

From February, and increasingly onwards, the Partridges showed considerable unrest. They ran restlessly up and down the wire, stopping every few minutes to give the flight-intention call, a throaty "Tschrech! Tschrech!" similar to the alarm call (for ground predator), often intensifying it to a tern-like "Tschree-ach!" as they made the preparatory movements for flying away, and often did in fact fly up on to some perch or ledge. I saw, indeed, some low intensity forms of behaviour associated commonly with pairing display, displacement-feeding, etc., but did not then recognize the import of such signs. Even by the 8th April, no pairs had formed, and there had been no fights (wild Red-legs normally pair in February or the first half of March). With Red-legged Partridge—as with many other birds—individuals that have been brought up together do not easily form pairs among themselves. This indecisive state of affairs continued until about mid-April, when I went away for four days. During my absence one of those "accidents" such as so often happen when one leaves one's birds in well-meaning but incompetent hands occurred. The aviary door was left open, and all the Partridges (and worse my old cock Jay "P") escaped, and were lost, shot in all probability, I fear.

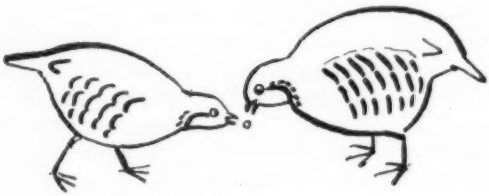
I thought that was the end of my Partridge-keeping, but it was not. A friend on holiday in Norfolk a month later happened to mention my loss to a gamekeeper, and the latter very kindly gave him eight Red-legs' eggs as a gift for me. These were put under a borrowed bantam hen, and all hatched. Three of the chicks were lost to predators, but the others throve, including one that was crippled at an early age owing to a heavy piece of wood falling on it. These chicks were kept for some time in the moveable pen on the lawn. Theoretically this should have been better for them, but except perhaps from a sanitary point of view it was not. At about five weeks old one or two of the chicks began to get rather wild. This wildness increased until at about seven weeks all would show some alarm, and a sudden approach or, more particularly, anything new in my appearance, would set them madly beating at the wire. In desperation I moved them to a large aviary. It then became evident that their fears had been aggravated by the lack of cover in the pen on the open lawn, and the fact of being unable to move to some distance from the alarming object. At first they ran away whenever I moved in the aviary, but soon returned to my vicinity. Within three days they were feeding freely from the hand, and only walking off a short distance when I moved, and within a week they were extremely tame, hardly bothering to get out of my way when I walked about.



Alarmed.

Brooding Chicks.

Resting.



♂ Feeding ♀.

Standing in Rain.

Giving Rally Call.

In the late autumn I received back the pair of 1950 birds which I had given away, as their owner was disposing of her game birds. This pair had always been tame, but were evidently upset by being caught up and conveyed in a box on the back of a motor-cycle. They were released together into a large aviary and showed considerable timidity. Within twenty-four hours the cock had completely retamed, but his sister remained extremely wild. For several weeks a close approach would send her crashing madly about. Indeed, in fear of her injuring herself, I released her, but she returned persistently to the garden. So I caught her up again and returned her to captivity after cutting off every other primary and a few secondaries in each wing. This does not prevent a game bird from flying, but does make it unlikely to achieve sufficient velocity to injure itself seriously when

it rises in sudden alarm. She gradually became somewhat tamer, but would never again feed from the hand, and always fled at the approach of strangers.

After a short time I introduced this pair to the other birds. These latter received them with the " Who's that ? " " A stranger ! " " Then chuck a brick at him ! " attitude not uncommon among allegedly more rational bipeds. The timid hen Partridge, scared of the human beings present, ran wildly to the far end of the aviary, but her brother stood his ground. The original inhabitants approached in a stealthy manner, aggressiveness being obviously tempered by caution. They went into aggressive display, but the newcomer (hereafter to be called " P ") was not intimidated, and he displayed back. A fight soon ensued, the two males pecking at each other's head, and trying to jump up and beat each other with their legs ; when they failed in this endeavour—which they usually did—they would seize a billful of their opponent's neck feathers and tug doggedly. The three females crowded around displaying, their aggressiveness being evidently not sufficiently aroused to stimulate them to fight. During a lull in the battle the lame hen, perhaps overestimating her abilities as we all so often do, suddenly attacked the strange cock. She soon had cause to regret her temerity, for he at once counter-attacked. She was seized, thrown down, and beaten severely, and as soon as she could tear herself free she fled precipitately into the depths of a rhododendron bush with all the aggressive drive knocked out of her. Since the two males " P " and Red—so-called from his ring colour—showed no signs of ceasing hostilities, and had begun to show signs of exhaustion, I separated them and shut the former in a small wire pen inside the aviary, thinking that within a day or two they would have got reconciled to each other's presence. This plan was successful, although a day's close confinement had an almost too-depressing effect on the male " P ", who on release showed very mild and timorous behaviour for some time.

Nothing very interesting happened, or rather was observed, for some time, except that one night some unknown predator dug in under the wire and took one of the Partridges, fortunately a hen. At some trouble and expense wire netting was sunk all round the aviaries to forestall any repetition of such feats. In late winter, and increasingly as the days got lighter, the Red-legs showed the same unrest as their predecessors had done, and likewise gave no signs of pairing. I noticed that if the male Red started to display, as he often did when approaching other birds after having been at a distance, " P " would tend to walk up to him, and sometimes go right up to him and " false-feed " at his feet. This I suspect was behaviour of an appeasing or submissive nature, as false-feeding (of which I shall have more to say later) appears to be essentially a peaceable gesture. I did not then

know the submissive posture, so cannot be sure if " P " showed it at low intensity on these occasions, but I think it probable that he did.

As by late March no pairing appeared to have taken place, I decided to try to expedite things. I left Red and one of his sisters—who was the tamest of all the females—in the original aviary, and moved " P " and his mate of the previous year (who it will be recalled was his sister) to another aviary a few yards away, and put the lame hen in with them. " P," within a few minutes of finding himself separated from Red, regained all his original self-confidence, and gave vocal expression to his altered feelings. Red was not slow in answering his challenges, and for some considerable time thereafter much of each day was enlivened by the two male Partridges singing against each other. The song of the Red-legged Partridge, although not lacking in vigour or persistence, is calculated rather to intimidate the conspecific rival than to charm the human listener.

After about a week it became quite clear that the male " P " and the crippled hen had paired. The two birds in the other aviary were, however, merely carrying on a wholesome platonic friendship, and had no deeper interest in each other, whilst the timid hen ran unceasingly up and down the wire opposite as if she wished to return to their aviary. Since it seemed unlikely that Red and his sister would pair, I put the timid hen in their aviary, and watched events. She at first fled, terrified at having been handled, but in a few seconds she came out of cover and made a " dead set " at the male. Within five minutes they had displayed mutually to each other, copulated, and prospected a possible nest-site. Her matrimonial ambitions and status thus having been consolidated the timid hen turned her attention to her sister-in-law, attacking her with that irresistible, self-righteous fury that Partridges—like some other bipeds—are apt to show when they suppose their sexual interests threatened. The victim showed no resistance, but only extreme fear—in my experience the usual, though not invariable, reaction of a female Red-leg to actual physical aggression—fleeing wildly about the aviary, and when cornered submitting without resistance to the other's attacks. Needless to say I soon rescued her, feeling a wholly unreasonable aversion for the timid hen because of her very human-like behaviour in continuing to ill-treat an unresisting enemy. The rescued bird was placed in the other aviary. Here the crippled hen, as " lawful wife " of the male, received her in a similar spirit, but owing to her physical disability, was unable to translate her feelings into effective action. After a few days she began to tolerate her rival, and soon they settled down to a " ménage à trois " with at least no overt signs of hostility. It seems tolerably certain that such a trio could never form or hold together in a wild state.

The hen of the pair by themselves soon started to lay. The cock

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MALE RED-LEGGED PARTRIDGE (RED RING) IN (PARTIAL) DISPLAY.

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MALE RED-LEGGED PARTRIDGE (RED RING) WITH CHICKS FIVE DAYS OLD.

[To face p. 54.

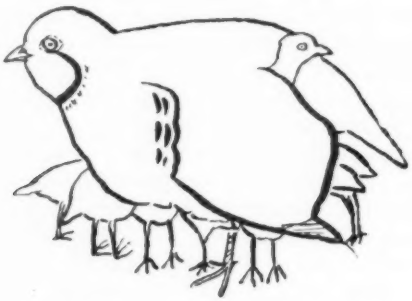
had already made two nests, one under some brushwood in a corner, and one under the edge of a rhododendron bush. The first egg was deposited in the latter, but to my surprise no more appeared in the next few days. I could see no other nest from a casual inspection, but when some ten days or so later I made a thorough search, I found a nest with eight eggs well hidden on the ground in the middle of the small rhododendron bush. Doubtless the first nest had been deserted owing to my paying too much attention to it.

When this nest contained nineteen eggs—which were laid at the rate of about four per week, but I regret I kept no exact count—the cock scraped out a fresh nest in a far corner under some conifer branches. The hen then continued laying in this second nest until eighteen eggs had been deposited in it. I began to fear that the birds did not intend to sit, but a few mornings after laying her last egg, I found the hen on the second nest. That day the cock bird showed a remarkable progressive change in behaviour, becoming hourly more silent and self-effacing. His air of aggressive masculinity changed in twelve hours to one of cowed and conscience-stricken femininity. Next day he commenced to incubate on the first nest.

That night there was heavy rain, and both Partridges came off the nest at dawn, and three hours later showed no signs of returning. I feared they had deserted, but about 11 a.m. both went back on their respective nests. At first they came off each morning and evening for some ten to twenty minutes or more, but as incubation progressed the off-duty spells became shorter, and the evening one dropped out. For the last four days I saw neither bird off the nest at all, and am fairly certain they did not come off. I had left them each about a dozen eggs, but some did not hatch, and were found on examination to have small "hair-cracks" in them. Possibly the Lanceolated Jays in the same aviary had pecked inquisitively at them, though they had not actually broken any. When the first of the twenty chicks that did hatch poked its head from under the mother, the lame hen Jay at once hopped up, seized and flew away with it. The Partridge did not seem to grasp the significance of this incident, and showed no signs of resentment. I was in a quandary since the Jays were then (mid July) in full moult, and the last thing I wished to do was to handle them. With acumen rare to me, I thought of the solution, cut a large hole in the side of the aviary and another in that of one near by, connected the two with a wire funnel, and easily drove the Jays into exile.

When the young Partridges were led from the nest it became abundantly clear that their parents had no interest in each other, but were solely concerned with the young. They did not quarrel, but the male would give his note of protest if the female came near when he was brooding. Owing to the chicks not distinguishing father

from mother, the broods were often unequally divided, and one saw the ludicrous spectacle of one parent uncomfortably brooding sixteen or seventeen, whilst the other had only one or two chicks beneath it.



Adult Brooding Month-old Chicks.

As with other game birds, the parent Red-leg reacts violently to the sound of a chick in distress or to the sight of some innately recognized enemy, but it is a case of " out of sound, out of mind ". So long as there are no overt reminders of the rest of the family, it is quite " happy " with even a single chick. Stupid though this behaviour may seem to the minds of animals capable of conceiving the Atomic Bomb and the Inquisition, it is, nevertheless, obviously adaptive. When irrevocable disaster has overtaken the majority of the brood it is clearly of great biological advantage that the parent should be able to concern itself wholeheartedly with the welfare of the survivors, instead of vainly fretting over the dead which no power on earth can bring to life again.

After the first week the chicks' mobility increased ; they were constantly roaming the whole aviary, and had learnt that my appearance meant food. Their timid mother usually ran to the far end of the aviary, especially if any stranger appeared, and tried to call the chicks away. They, however, soon learned to ignore her under these circumstances, and would come running up to me with their father, who was perfectly tame.

More surprising than the chicks failing to be influenced by their mother's wildness was her lack of response to their tameness. Two of the chicks died when three weeks old, but the remaining seventeen were reared. Despite the fact that she was now in company of eighteen other Red-legs, all of whom were extremely tame, the old hen still remained wild. It is often thought that birds are greatly influenced by the behaviour of their companions, but in my experience this is usually only so if they have no " preconceived ideas " on the object evoking their companion's behaviour. A bird that is afraid of a person

seldom shows any less fear because a fellow-captive greets his appearance with eagerness. Nor, on the other hand, does a tame bird often become wild if associated with a timid comrade.

When moulted out into their adult plumage the seventeen young Partridges made a delightful picture. They were very tame, and some of them would even perch on my arms and shoulders to be fed. The food bill was, however, considerable, and I had not sufficient space, so I reluctantly decided to part with the majority. I thought that the best chance of their getting to good homes was to give them away. In this I may have been wrong, as many people value more something they have paid a high price for than something that has cost little or nothing. Accordingly, I put a note to the effect that I had some Red-legs to spare in our Magazine. The result was overwhelming, and I was not able to reply to all the letters I received, though I read them all more than once. Finally, the spare birds were all sent off to their new homes with sundry members of the Avicultural Society. One of the latter neither acknowledged receipt of the birds nor—in spite of repeated requests—did he ever return my travelling-cage to me. The four other members sent me nice letters of thanks, and promised to let me know how the birds fared. None of them did so and when, a year later, I made inquiries I learned that in two cases the birds had been killed by stoats or foxes. The other two did not bother to reply at all to my letters, so I rather fear their Partridges had also come to grief by some accident, or else been sold or eaten !

The " trio " of Red-legs in the other aviary laid three nests of eggs. Both hens laid in the same nest. The impulse to lay in a nest already containing an egg or eggs, rather than an empty one, is very strong in game birds, and has of course long been utilized by keepers of domestic fowls to induce their birds to lay in nest-boxes where the eggs can be gathered. In a wild state this impulse is biologically useful, since it ensures that the bird will lay her later eggs in the same place as the first and not in one of the innumerable other sites that are in other respects " just as good ". Like many other innate impulses—and not only those of the class Aves, this one can prove harmful where man has altered the natural state of things. If the gravid female game bird finds a nest already containing eggs, she will lay in it rather than make one for herself elsewhere. This happens very rarely where wild game birds are at a normal density, but often in areas where game-preservation holds sway. Everyone knows how common an occurrence are nests containing the eggs of two or more females—often of different species—in English game preserves. In the case of the captive Red-legs the fact that the male usually takes the initiative in selecting the nest site also probably affected the issue, since the male scratches out another nest, to which he calls the female when the first is full of eggs.

In this aviary only one female (the sound one) incubated, on the last of the three nests. Unfortunately, she became ill and died quite suddenly after sitting for twelve days. Neither the male nor the crippled female went broody. I thought at the time the male's failure to do so was because the female was still with him, but later observations changed my opinion. I now suspect that his failure to incubate (which he has shown also in 1953) is due to the fact that incubation in the male is accompanied by a psychological change to a furtive and non-aggressive mood. This would presumably be more "difficult" for an individual whose aggressive drive is extremely strong, as is the case with this male. Of course it is probable that some factors of captive life may also tend to inhibit incubation.

Having given away my surplus Partridges, I still retained six birds, thinking this an ample number for future study in view of my restricted time, space, and money. Unfortunately various disasters happened, culminating in an infestation of gapes that wiped out in 1953 all the remaining birds, except the two old males and two juveniles, one of which latter subsequently escaped and was lost. I am now left with three males, and all efforts to purchase some tame females have proved unavailing.

Some notes on the care of these birds may prove of interest.

Food.

I have found that Red-legs do well on a diet of grain (wheat and/or millet), with a little bread and milk (to which bemax and glucodin are added) about twice a week. This can be varied with dry wholemeal bread, and a few peanuts or small bits of cheese given by hand frequently, will help to keep the birds tame. Plenty of fresh green food is important. No matter how well fed otherwise Partridges like to eat quantities of green food. Cabbages and lettuces, especially such as have run to seed, brussels sprouts, etc., are all acceptable, but particularly fresh turves of grass and clover. From a turf they can pluck the grass-blades, clover leaves, seeding weed-heads, and so forth, in a natural manner, but such things as lettuces must be firmly tied or fixed between two bricks so the birds can peck at them. When breeding the hens especially often relish beetles, mealworms, and other insects, though in general they care little for them once adult. Probably if the diet were otherwise poor in protein they would eat them at all times. In the domestic fowl and Golden Pheasant the inclination to eat earthworms—which is usually only shown by growing young and laying females—can be stimulated by putting them on a low-protein diet. If the floor of the aviary is covered in parts to a depth of several inches with leaf-mould or similar litter, and millet thrown into this, the birds will take a lot of exercise scratching for the seed.

I expect any regime on which young pheasants are successfully

reared would suit young Red-legs. If mine are being reared by a bantam, I place them on the lawn in a pen, which is moved daily. If they can be obtained, I feed largely on the cocoons and grubs of the small ants (one reddish and one black) whose earth-heap nests are common in fields and roadside grass strips. The chicks also eat the winged male and queen ants, and sometimes—with less avidity—the workers also. In addition to this I give milk-sop to which a little bemax and glucodin has been added, a few mealworms or mealworm pupæ, and any other small insects that come to hand. After a week or two I add a little seed to the diet, and gradually get them on to the same diet as the adults. Growing young may be given the cocoons of the large wood-ant, but I do not like these for baby chicks as the fiercely fighting worker ants might do them some harm in the early stages.

At first the chicks are ravenously fond of mealworms, but in every brood I have reared they have "lost the taste" for them between four and six weeks of age, although still continuing to eat ant cocoons, cheese, broken peanuts, and other rich but non-motile food. When the Partridge chicks are reared by their own parents the same regime will suffice. So long as they are getting plenty of ant pupæ and green food, they take no harm from eating a certain amount of grain from an early age. Grit, clean water, and dust-bathing facilities must, of course, be provided for both young and old.

Diseases.

My first brood of Red-legs developed swollen faces, with running eyes and noses, in late November. This would appear to have been a form of Xerothalmia, or something akin to it (Hastings, 1953). The birds were quickly cured by giving each a few peanuts slightly coated with halibut liver oil daily until they improved. Since then I have given my Partridges a feed of grain treated with halibut oil, about once a week from October to May and have had no further trouble.

Gape-worm infestation, as I have narrated, wiped out most of my Partridges in 1953. The adding of T.C.P., permanganate of potash, and so forth to the drinking water has, in my experience, proved futile. Mechanical removal of gapeworms although often successful with Jays, proved no use with the Partridges. I have since found Barintar—a powder manufactured and sold by I.C.I.—effective in curing afflicted Jays, and hope that it will prove equally so for Partridges if mine are so unlucky as to be again attacked with this scourge. I may say that I found Aniodol Interne had no apparent adverse effect on gapeworms in Jays and Partridges. This is strange when so many members appear to have found it a certain cure for gapeworms in Starlings. Gapeworms are said to be often picked up through eating insects or worms that contain their eggs. This seems

likely to have been the case with my Partridges where the two laying females, and most of the young were infected, but not the two non-insectivorous adult males. Where young Partridges are reared by their own parents in aviaries, where the ground and its insect life are likely to be infected with gape-worm eggs, it is probable that the method suggested by Wilford Smith (1947) would prove a remedy. This consisted of thickly covering the floor of the aviary with dead bracken, so that the chicks did not come into contact with the earth.

Pros and Cons.

As aviary birds Red-legs can be recommended for their beauty, tameness (in most cases), and the ease with which they can be kept and bred. They are not, however, suitable for small aviaries. On the regime often accorded to gallinaceous birds in public aviaries (whose proprietors are sometimes, I suspect, in league with anti-bird-keeping circles) of corn *ad lib* and a lump of stale cabbage once a week, they most certainly will soon cease to be of any beauty or interest.

Their faults are those common to most largish ground birds. They foul the ground considerably (removing the droppings from and/or liming the roosting places will help to obviate this), and may cause considerable disturbance if they panic at night. Although not usually aggressive to weaker birds, they may be so at times, birds with young, and males in breeding condition whose aggressive drive is very strong, being the most likely offenders in this respect.

Voice and Display.

I shall only briefly mention these, as I have dealt rather fully with them in a recent paper (Goodwin, 1953) elsewhere, to which readers are referred. Einbeck (1834) also mentions this subject, and gives many interesting details about his captive specimens.

The most familiar note is the " rally call "—the loud, rather harsh " Chuk, chuk, chukuk, chukar ! " This is used to indicate the bird's whereabouts to its young, mate, or companions when, for any reason, it has become separated from them. In spring the male utters a loud harsh rhythmical " song " which suggests a laboured steam-engine. At a little distance it is hard to believe that a bird, and not a locomotive, is responsible. These two calls are loud and far carrying, but the bird also utters a great many other notes, most of which are rather quiet, and hence not often known to sportsmen and others who are only familiar with the species at gun-shot range or further.

The commonest display is one in which the bird draws back its uplifted head at the same time " twisting round " the face and neck markings in a peculiar manner, so that they are displayed almost fully to one side. The barred flank feathers come up high over the wing on the " displaying side ". The other wing is often drooped, so that

the primaries drag the ground. This display is primarily threatening, but it is shown between male and female—interspersed with food-calling and other appeasing gestures—during pair-formation. When feeling " inferior " and wishing to avoid fighting, a bird usually responds to any signs of aggressiveness by walking in a somewhat crouching " guilty-looking " posture. At a highter intensity of this feeling it will raise one or both wings above the line of the back, and at the same time spread out the primaries. In this movement the yellow-buff on the outer ends of the primaries and some of the secondaries become much more conspicuous than when the wing is folded normally.

REFERENCES

EIMBECK, F., 1834. " Beitrage zur Naturgeschichte des Rothfeldhuhns *Perdix rubra* Briss." In Naumann's *Naturgeschichte der Vögel Deutschland*, 7. Leipzig.

GOODWIN, D., 1953. " Observations on voice and behaviour of the Red-legged Partridge, *Alectoris rufa*." *Ibis*, 95 (1953), 581–614.

HASTINGS, P. H., 1953. " The cause and cure of eye disease." AVIC. MAG., 59, No. 4, pp. 120–121.

SMITH, WILFORD, 1947. " How to rear Ornamental Pheasants." AVIC. MAG., 53, No. 4, pp. 125–126.

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FRIENDSHIP AND ENMITY BETWEEN BIRDS

By A. A. CLARENCE (Nunton, Nr. Salisbury, Wilts, England)

I have long been impressed by the loneliness of single birds and the friendships that ensue. Also by the cruelty of birds to their kind.

Among them the Orange-headed Ground Thrush is a good example. He seems to reserve his spleen for the hens of his own race. For the last three years I have had a pair of these birds in a 40-foot aviary. On Christmas Day the cock slew his hen with evident pleasure, and left her corpse without feather on head, neck, and back.

I arrived on the scene just after he had committed the murder, and found him perched above preening his feathers, and obviously saying " well, good-bye to all that ". Possibly the reason for his action was that for two seasons he had carefully built perfect nests which had been ignored by the hen. Last spring he built two, one of them in a circular tin about 8 inches in diameter and 2 inches high. This tin was used for seed and is fixed to the top of a 4-foot drainpipe with a hood over it against rain.

After some weeks of waiting, a Brown-eared Bulbul decided that it was her's for the taking and took possession. She laid three eggs of a beautiful mottled strawberry tint, which were inspected daily by the Orange-head. He would stand on the edge of the tin, and look at the

little hen with his head cocked on one side with an expression of astonishment which clearly indicated " well I'm hanged ! ". She would look back at him and chatter in a most friendly way.

After nearly three weeks she gave up trying to hatch infertile eggs, to my disappointment and that of her spouse. A Red-vented Bulbul immediately took over the nest and added one solitary egg to the clutch. The Orange-head took no interest whatever in her or her doings, even when, in due course, the chick was hatched.

For no particular reason this baby was called " Georgie " and now George or Georgina whichever sex it is, is flying strong and full grown with its parents, and three other brothers and sisters of the previous year's hatch. The year before that the old pair had two young ones, both of which they killed, as soon as they were full grown, which all goes to show how sweet they are.

With regard to curious friendships, a pair of Canary-winged Parrakeets also inhabit this aviary. In the spring I introduced a Golden-crowned Conure cock. Immediately the hen Canary-wing left her husband, and became the inseparable companion of the Conure, who likewise is devoted to her. The Canary-wing is very tame and flies to my shoulder as soon as I enter the aviary. The Conure eventually overcame his fear and now sits on the other shoulder, but is off at the smallest sign of intimacy on my part. I have to keep an eye on him, as he would like to bite my ear hard, and has done so once or twice. No doubt he thinks he is getting his own back for past grievances.

Unexpected things happen in aviculture, as we all know. The most interesting in my experience happened last summer and concerned a pair of Cockatiels. These birds had a second nest. The eggs were about to hatch when the hen became ill and died. In the aviary with the parents were four young Cockatiels from the first nest, which they had left about six weeks before.

I was lamenting the loss of the hen, and had just removed her warm corpse from the corner into which she had fallen, when to my astonishment one of her daughters, showing concern, flew to the nest and inspected the contents. She did this several times and within half an hour was in the box sitting on the four eggs, all of which she hatched in the next few days and brought up successfully.

Although I watched carefully, I could never decide if any of the other children helped to feed their younger brothers and sisters. I think not, judging by their bibs, which were always clean whereas the little foster-mother became wet-bibbed and bedraggled.

* * *

NOTES ON A SMALL COLLECTION

By FRANCES E. MATTHEWS (Cranleigh, Surrey, England)

I have been asked to give a few particulars about my foreign birds. Some years ago they were housed in aviaries, and then there was much more of interest to tell about them. Owing to the changeable seasons, the birds now in great request are the species which can stand up to all rapid changes of temperature. The birds I have now are all indoors in a large room. This gets all the sun and the windows can open without draught.

I have Violet-ears, Red-headed Gouldians, Cordon Bleus, and Zebra Finches—all in large cages.

The pair of Violet-ears have been very busy making their nest. They are very tame. The nest is made from plaited rushes. It is cone-like in shape and now it is filled with grass. I find these birds very attractive. They never quarrel ! Both birds can sing before it is daylight ! The cock's note is like that of the Reed Warbler. The hen in her nest joins in " to cheer him up " !

Presently the cock calls her out for their morning drill. This consists of a very graceful type of flying—in which each bird takes part—each bird rising and bending as they fly across the cage. But they time it so that they never touch. I think this exercise is unique and interesting.

The Gouldians, two pairs, are not as energetic as the Violet-ears. One pair inhabits an indoor aviary, on the lines of the one illustrated in Mr. D. H. Risdon's book, which I think is very good. The birds enjoy ample space and sunshine. They have a good box nest which they are preparing. In the same enclosure are a small pair of Cordon Bleus in a rush nest at the other end. The four birds get on well, though the Cordons are not allowed to know which nest they may be allowed to occupy !

Last year, in another place, the Cordon hen laid two eggs but they were not hatched as the birds were disturbed. The second pair of Gouldians, though they have filled their large nest-box with grass, don't seem anxious to nest. Two pairs of Zebra Finches, in separate cages, spend their time talking and making a lot of noise, filling their nest with grass and removing it. It delights them to make a noise. They can do this when they make a root of grass really hard and then drop it. If the hen lays eggs she disregards them. The cock thinks otherwise.

Now I must tell you about Julie, our African Grey Parrot. She lives by herself, and is very strong and not afraid of cold. Her voice can be heard very early, when she hears my daughter moving about. Polly lets her know she is alive. She is told she is " making too much noise and must wait ". Her loneliness must find expression, however, and her want to be uncovered is attended to. The seed first, then the bread

and butter, with marmalade, arrive and Julie's remark is " Whoo ! ". She knows my step and connects it with one or two grapes.

My daughter speaks to me in my room (Polly's hearing is very good) so she joins in the conversation, and says " Yes mother " !

She does not talk when she comes to my room and climbs up on my knee to be stroked, but it is difficult to persuade her to go back to her cage. I think one of her best remarks was when told that " The gardener might be late coming to clean her cage ". Julie said, " What a shame ! ".

* * *

OBITUARY

G. E. LODGE

By the death, at the ripe age of 93, of George Edward Lodge, the world has lost one of the greatest bird artists of all times, for his paintings of birds and of their natural surroundings were not excelled by any.

Lodge was perhaps primarily interested in the birds of prey, of which he was an authority, and his pictures of these are amongst his best known. He had, in his younger days, done a great deal of falconry and the falcons were his great favourites, though the game birds ran them closely. He dearly loved the Highlands, and his pictures of grouse and ptarmigan, with perhaps a falcon attacking them, are amongst his finest works. When he took a holiday it was generally to visit his Scottish friends who were always glad to have him in their shooting or stalking parties, for he was an excellent shot. But his travels were not confined to the British Isles ; he had visited the United States, West Indies and Scandinavia in his studies of birds and beasts.

As well as being an artist, Lodge was a very keen naturalist, and it was always a delight to talk with him on birds and other British creatures, for he knew them all and had studied their minutest habits. I have known him well for the past half century, our first meetings being at the Ornithologists' Club, when those early meetings were held in Frascati's Restaurant in Oxford Street. I have talked with him and admired his work in his studio in South Kensington, where a lot of his pictures were made, and later when he had retired to Camberley. Well do I remember (it must be close on fifty years ago) when the Zoo had acquired a fine Lesser Bird of Paradise which was housed in the old Insect House on the north bank of the canal. Few had, up to that time, seen the full display of this species, but we heard that this bird was beginning to show off in the early mornings. Ogilvie-Grant, of the British Museum, was anxious that Lodge should make sketches of the display, so Grant, Lodge, and myself arranged to meet

[Illustrated

G. E. Lodge

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there at eight o'clock on a given morning. It was a bright morning, perhaps too bright for the bird's liking, for he refused to display, though Lodge was able to obtain sketches of various attitudes.

Lodge's pictures have been reproduced in most of the best ornithological books of the last half century or more, and they are particularly pleasing as being both excellent drawings of the birds themselves and beautiful pictures of their surroundings, whether woodlands, lakes, or mountains. His latest work, only completed shortly before his death, has been the illustration of David Bannerman's *Birds of the British Isles*, a colossal undertaking for which he painted no less than 435 species comprised in 377 plates. These depict not only the well-known species, but the occasional immigrants that have obtained a place on the British List. He only wrote one book himself, *Memoirs of an Artist Naturalist*, an excellent book containing a number of his pictures, both in colour and monochrome, though the reproduction in some cases is not quite up to the mark.

When I saw him last in his house in Camberley he had grown a beard which well suited his handsome face. He had practically lost the sight of one eye, but could still paint as well as ever, though he told me that it took him much longer than formerly, and to put in a bird's eye which formerly took but a few minutes, now took the best part of half an hour.

His house was quite a museum as well as a gallery of pictures, wings, tails, and skeletons of birds to show the arrangement of the feathers, the joints, and so on, for as he said, the bird artist has to know precisely how every feather lies and the exact position of every joint. He was also a skilled taxidermist.

George Lodge was a younger son of Canon Samuel Lodge, Rector of Scrivelsby, in Lincolnshire, and cousin of the late Sir Oliver Lodge. He never married, his sister keeping house for him until a few years ago, when she died. Archibald Thorburn, that other great bird artist, who died several years ago, was one of Lodge's great friends. Now both are gone, the last of the Old School of Bird Painters. Will the younger generation produce any quite so good ?

D. S-S.

* * *

BREEDING OF THE CAPE ROBIN

By J. M. Spence (Cape Town, S. Africa)

On 9th February I was given a Cape Robin (*Cossypha caffra caffra*). I have had them many times before, but had never succeeded in keeping them very long as we are unable to get prepared food for softbills, and no one could tell me much about them. To cut a long story short I tried him on egg and biscuit (one mashed egg to two biscuits) ; it worked and he thrived on it and gradually I enlarged his diet (boiled potato, fish meal, bread and milk, grated carrot and cheese). The general colour of the bird is dark grey with a rusty-coloured breast and tail and it has a white eye-strip. The most attractive thing about these birds is that they are forever flicking their tails, to show the two dark feathers in the middle. They are mainly terrestrial in habits although they spend much of their time in low bushes searching for insects.

On 21st February I turned my bird into one of my aviaries, 18 feet by 11 feet by 8 feet high, containing about sixty other birds of various kinds, including some Sunbirds.

I obtained a hen on 22nd February. She was meated-off in the birdroom for a week and then turned into the aviary with the cock. This pair got along quite agreeably as long as the hen kept a respectful distance, but at times he would chase her round quite unmercifully. I have, incidentally, had cocks which would tolerate neither cocks nor hens and if the bird was not removed in time a particularly horrible death was liable to follow.

I got another pair on 12th April and turned them into a smaller aviary, 10 feet by 6 feet by 8 feet high. This pair as it happened got on very well together. They were housed with a pair of Cape Bulbuls and three Bokmakieries (*Telophorus zeylonus zeylonus*). There was no trouble and all went well until the 22nd April when one of the hens died quite suddenly, but I was given another on 19th May.

As the summer got closer the cocks started to show signs of wanting to mate, and on 13th August the cock in the big aviary suddenly grabbed the hen and before anything could be done she was dead with a broken neck.

On 29th September the cock in the smaller aviary was noticed to be having trouble with his eyes. He was caught up and treated with bicarbonate of soda solution and Vaseline E.T.C., but of no avail ; he died on 5th October.

I then introduced the remaining cock to the hen and on 26th October I suspected them to be nesting, as I could only see one of them at a time, so they were left severely alone.

After a few days I noticed that the bread and milk was disappearing

faster than usual. They had the same diet previously described, and no live food whatsoever because I was afraid a sudden change of diet might affect them adversely.

On Thursday, 12th November, I saw a youngster running amongst the long grass in the aviary, and on the 13th I found it dead near the door.

Then on Sunday the 15th when I opened the door to feed the birds there on a perch straight in front of me was a second youngster, this time very far advanced, in fact so much so that before I knew what had happened it flew past me into the garden. I managed to catch it again and it was returned to its aviary within an hour. On the Monday evening I had to remove the cock because he was constantly chasing the youngster round and round the aviary.

The youngster was somewhat smaller than its parents, and the body was grey-brown, streaked with black. The tail was the exact copy of its parents except that it was shorter.

On 27th November the hen had sore eyes, so I put her into the birdroom and tried to cure her eyes but of no avail; she died on 13th December. Incidentally, this eye disease is a queer thing, the lids of the eye go hard with some secretion from the eyeball. It looks very much like pus from a festered sore, so that when the eye is closed the bird is unable to open it and also when opened it is unable to close it. When, and if, you are able to stop the secretion of the fluid by constantly washing with bicarbonate of soda and boracic solution then the feathers round the eyes and beak start to come away, until finally the eyes start watering again and the bird just wastes away. I have been unable to cure this disease and would be glad to hear if any fellow members have come across the same thing, or could recommend some cure, or better still some preventive. At the time of writing I am battling to save the two remaining Robins from the same horrible and slow death. I have managed to stop the eyes secreting the liquid by using a powerful solution of boracic acid powder.

I am sorry that I am unable to give more detail as to the colour, size, and shape of the eggs, period of incubation, growth and feeding of the offspring but as I say I was loth to interfere with their nesting activities in any way in case they deserted the nest.

The only thing I was able to get any information on was the nest: it was (internal measurements) three inches in diameter and one and a half to two inches deep, and constructed of rootlets, coir, feathers, and hair in the form of a cup. The nest was well placed as far as protection from the weather was concerned because it was placed under a tuft of long grass which in turn was under a Pittosporum tree about four feet high.

As far as I can deduce from studying their nesting habits in the wild

the incubation period is from twelve to fourteen days, and the youngsters are flying at 15 to 18 days from the date of hatching.

Additional Note.—Since I wrote this article the cock Robin has also died which leaves me with the youngster.

* * *

MR. RUDKIN, SR., CARRIES ON AT 92 !

By CARL NAETHER (Sherman Oaks, Calif., U.S.A.)

One of California's ablest and most successful aviculturists, Francis H. Rudkin, Sr., is to-day making active plans for the 1954 breeding season. Though 92 years old, this indefatigable birdlover is remodelling some of his aviaries at his cosy citrus ranch in Fillmore, California, for more convenient and effective birdkeeping.

Almost ever since the vear 1912, when the Rudkin family forsook their homeland, England, to build a new home and a new life among strange surroundings and people in California, birds of various kinds have been in the minds and hearts of both Mr. and Mrs. Rudkin, Sr. Their special attention for years has been devoted to the breeding of parrot-like birds, in which phase of aviculture they have been eminently successful.

Since the passing of his wife, Mr. Rudkin, Sr. has carried on his great hobby with double devotion. Perhaps the most fruitful results of his labours in the field of aviculture are not the raising of many and often rare parrot-like birds in the numerous aviaries he keeps going year in and year out, but the encouragement, the inspiration, and the helpful advice he has been giving all these many years to the visitors who almost daily throng his home-place to view his birds and to catch some of this great man's enthusiasm for his feathered friends. Unquestionably, Francis H. Rudkin, Sr., has the satisfaction of having been responsible for starting many men and women on the long road to successful birdkeeping. Always genial, always eager to help solve a bird problem, he has given unstintingly of his time and effort every day in the year, including Sunday, to furthering the most constructive and wholesome interests of aviculture. Not only grown-ups have thus benefited from association with this eminent bird fancier, but youngsters of all ages, brought by their elders or teachers in small and large groups to view the Rudkin bird collection, have been thrilled by the colourful display of so many and so varied species of parrots, cockatoos, cockatiels, parrakeets, lovebirds, and other showy feathered creatures. And all of them, youngsters as well as grown-ups, have taken away with them not only the memory of beautiful birds, happy in their spacious surroundings, but of a man's loyal devotion to their everyday welfare and their happiness. Though Francis H. Rudkin, Sr., keeps hundreds of birds, as he takes his visitors

from aviary to aviary, he spiritedly relates stories of what this bird or that bird has done, or has not done, thus keeping his visitors on the alert during every joyous moment of their visit. If he had made written note of the innumerable questions he has been asked about the care and breeding of parrotlike birds—and has valiantly endeavoured to answer fully and satisfactorily—they would indeed fill a very sizeable volume.

This modest tribute to a great and venerable aviculturist is written in the hope that it will in some measure inspire other birdlovers to follow his fine example. It is one thing to keep birds for one's very own pleasure and self-satisfaction ; it is quite another thing to ride one's hobby successfully and at the same time share its successes and its joys with like-minded men and women, not only in one's immediate neighbourhood, not only in one's state or even country, but even abroad—as Mr. Rudkin has demonstrated for so many years to so many people.

In closing, I am confident that the members of the Avicultural Societies of England and of America will join me in wishing Francis H. Rudkin, Sr., many more years of continued personal well-being, and of continued enjoyment of his beloved birds.

* * *

A NEW BUILDING FOR BIRD AND PLANT EXHIBITION

By Roland W. Hawkins (Pittsburgh, Penn., U.S.A.)

Down through the ages mankind has derived endless hours of pleasure from keeping birds as pets. Some species are valued for their songs or ability to mimic the human voice, and others for their beautiful plumage. To-day there are many bird fanciers whose entire enthusiasm and interest in birds is directed towards breeding certain species to obtain purer strains and specific colour patterns. The methods of keeping birds has unfortunately shown little imagination and the conventional types of cages constructed of wood or metal having either screen, wire, or glass sides does little to promote the happiness of its inmates. Of all the animal kingdom, birds, due to their powers of flight, are perhaps the most freedom-loving creatures on the face of the earth. To capture and confine them within the cages as we know them to-day produces results that are all too apparent in the birds' condition. Certain species that have been domesticated by man, such as the canary, thrive and appear perfectly happy within the confines of a small cage. A great many of the larger public and private aviaries where collections of local and foreign birds are housed, consist of row after row of cages containing nothing more than perches, food,

and water vessels. Regardless of how well the birds are cared for, they cannot reflect happiness in such an environment, for it is nothing more than a jail bearing with it a sentence for life-time solitary confinement. In recent years there has been a decided trend towards larger flight cages containing running water and some plant life. This is a highly commendable improvement as the birds have more area to exercise and do not feel so badly shut in.

In keeping with the progressive march of the City of Pittsburgh is the new Conservatory-Aviary located in West Park on the city's North Side. Here is a success story of a building unique in design and principle, where the method of exhibiting birds in captivity has entered upon a new era that makes the old-fashioned cage methods seem completely antiquated.

In two large glass-domed conservatory rooms constructed of steel and aluminium, tropical birds and plants thrive in complete harmony. Without the intervention of physical barriers of screen, wire, or glass, visitors are permitted to walk in the rooms with the birds and plants, to see and study them in a natural environment. The many species of lush tropical plants, including bamboo, rubber trees, avocado, papaya, coffee, mango, and various palms, etc., along with a myriad of interesting smaller plants sets the stage for the many species of tropical birds selected for their beauty, character, and song. A running stream, complete with cascading waterfalls and pools, adds natural beauty as well as providing a home for numerous species of fish, aquatic freshwater animals and water plants. It does not require an experienced eye to see that the birds are completely happy in this environment, a condition easy to judge through their actions and appearance. Sleek in their full plumage they are active bright-eyed birds reflecting their boundless energy and health with their songs and calls, echoing and re-echoing throughout the rooms. Where the species are represented by both male and female birds, breeding and nesting activities have been carried out successfully within the rooms. When birds mate, build nests, and rear young it seems right to assume they are not feeling remorseful at being held in confinement.

The overwhelming success of this new combination Conservatory-Aviary will undoubtedly stimulate interest in vivariums throughout the world. Now it has been conclusively proved that birds, plants, flowers, and fish will all thrive and propagate themselves under the same glass roof, aviaries and conservatories can unite and present a continuous cultural showplace of far-reaching educational values to young and old alike.

There were a few sceptical critics who believed a venture of this type would be doomed to failure from the beginning, their reasoning being that the birds would destroy the plant life and mess up the exhibit areas to such an extent it would become unsightly. The rule of success

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SIXTY BIRDS REPRESENTING TWENTY-EIGHT SPECIES, AND FIFTEEN FAMILIES MAKE THEIR HOME IN THIS CONSERVATORY ROOM

[*To face p.* 70.

[To face p. 71.

Copyright] [*Harold Corsini*

THERE ARE NO BARRIERS BETWEEN THE VISITORS AND THE BIRDS.

governing this problem was through the control of population, both as to numbers and to species. Birds known for their destructive tendencies towards succulent plants were either omitted from the rooms entirely, or represented by a few individuals. By controlling the population in this way, plant destruction is of no significance. Once established the plant life grows so profusely it has to be cut back from time to time, otherwise it would completely take over the rooms. Insect pests pose a more serious problem as poisonous insecticides cannot be used, being fatally disastrous to the birds. The insectivorous birds keep the plants clean of mealy bugs and aphid, but the scale insects have to be controlled manually. The foliage is kept clean by the morning and afternoon syringing of the plants and any bird droppings that may have spotted the leaves washes off readily.

With no need for far-reaching vision it is now possible to predict the progress of new aviaries in the future. Large conservatory-type structures will be built and planned along ecological lines by scientists representing all the fields of our natural sciences. Together they will be able to plan authentic ecological controlled rooms, of the various life zones, complete with the dominant plants and birds endemic of the different areas chosen. These displays will undoubtedly take the place of existing bird and plant exhibits as we know them in our zoological gardens, aviaries, and museums of to-day. In such buildings, where birds and plants can be kept under continuous surveillance, ecological studies of their inter-relationship will advance rapidly. The educational and scientific prospects for such buildings will have tremendous influence on the studies of natural history in the future.

Few people have an opportunity during their lifetime to visit tropical countries, where in their leisure hours, they can make trips into remote areas to observe and study the flora and fauna. With such buildings as the Conservatory-Aviary within the limits of our modern cities, many of the most interesting exotic birds and plants can be studied in comparative comfort, without being subjected to the rigours of tropical exploration. Jungle entanglements, biting insects, poisonous snakes, are far away when one enjoys the thrill of watching a flame-coloured " Cock of the Rock " fly from tree to tree in the new Conservatory-Aviary. Toucans with their large colourful bills, the piercing calls of the Naked-throated Bell Birds, the pendulum tail movements of the Motmot, the cordial greeting of the Javan Hill Mynah are but a few of the many interesting and colourful tropical birds you will encounter. Many visitors are thrilled to see how bananas grow while others are amazed at the phenomenal growth rate of the bamboo shoots, growing twelve inches a day. Flora and fauna, the combination of the two makes an impressive exhibition.

Although many of us have dreamed of such a place the credit for seeing these dreams realized belongs to Mr. Howard B. Stewart,

Director of Parks and Recreation ; Frank Curto, Horticulturist in charge of Conservatories and Gardens ; Arthur R. McLennan, Superintendent, Bureau of Administration. Their far-reaching vision has advanced methods of bird and plant exhibition to a new and higher plane.

Since the doors of the building opened on 10th August, 1952, many thousands of visitors have acclaimed and voiced their enthusiasm for this new type of exhibit. Students in nature and biology classes, Nature photographers, artists, young and old alike, from all walks of life can spend many enjoyable and instructive hours in the new Conservatory-Aviary.

* * *

MEMORIAL TO THE DUKE OF BEDFORD

In response to numerous requests it has been decided to launch an appeal for funds for a Memorial to the late Duke of Bedford. The memorial will take the form of an aviary to be erected in the Zoological Gardens at Regent's Park, London, where the Zoological Society will maintain a collection of homing Budgerigars at semi-liberty. In addition, it is proposed to provide a Challenge Cup to be known as the " Duke of Bedford Memorial Trophy " for the best Parrot-like bird, to be competed for annually at the National Cage Bird Exhibition. The appeal committee consists of Mr. Alfred Ezra, President of the Avicultural Society, Miss E. Maud Knobel, Messrs. E. J. Boosey, B. H. Dulanty, S. Porter, A. A. Prestwich, D. Seth-Smith, J. J. Yealland, and R. C. J. Sawyer (Hon. Treasurer).

The Council of the Avicultural Society have decided to give the appeal every support, and it is hoped members of the Society will send donations, however small, to the fund for a Memorial to this great aviculturist, to whom aviculture in general and the Society in particular, owe so much.

Cheques, postal orders, etc., should be sent to :—

The Hon. Treasurer,
The Duke of Bedford Memorial Fund,
c/o Zoological Society of London,
Regent's Park,
London, N.W. 1.

* * *

THE SOCIETY'S MEDAL

The Council has awarded the Society's Medal to A. A. Prestwich, for breeding the Lineolated Parrakeet (*Bolborhynchus lineola lineola*).

* * *

BRITISH AVICULTURISTS' CLUB

The forty-second meeting of the Club was held at the Rembrandt Hotel, Thurloe Place, South Kensington, S.W. 7, on Wednesday, 10th March, 1954, following a dinner at 7 p.m.

Chairman : D. Seth-Smith.

Members of the Club : Mrs. J. R. Alderson, Miss P. Barclay-Smith, B. Benedict, Miss K. Bonner, Captain A. A. Clarence, G. T. Clark, Mrs. G. T. Clark, W. D. Cummings, A. H. D'Aeth, J. O. D'eath, B. H. Dulanty, O. E. Dunmore, A. Ezra, Miss S. A. Fothergill, H. J. Harman, R. E. Heath, Dr. E. Hindle, G. T. Iles, Miss M. H. Knobel-Harman, Dr. F. B. Lake, G. C. Lynch, P. H. Maxwell, G. S. Mottershead, S. Murray, S. Porter, A. A. Prestwich, J. H. Reay, D. H. S. Risdon, R. C. J. Sawyer, A. E. Sibley, E. H. Tong, E. N. T. Vane, N. S. Walker, C. H. Wastell, H. Wilmot, H. Wallace Wood, J. J. Yealland.

Guests : Dr. K. Aylwin-Gibson, J. Bailey, Miss E. V. Baxter, Mrs. Carson-Roberts, S. A. Croucher, Miss H. Gentry, Mrs. B. H. Claeson Gordon, M. L. Jones, Mrs. F. B. Lake, H. M. Luther, Sir Philip Manson-Bahr, Lady Manson-Bahr, Mrs. H. Maurice, Mrs. S. Murray, Mrs. J. H. Reay, Mrs. D. Seth-Smith, Mrs. E. H. Tong, Mrs. C. H. Wastell, Miss M. White, Mrs. H. Wilmot, W. A. Wood, A. N. Other.

Members of the Club, 38 ; guests, 22 ; total, 60.

Sir Philip Manson-Bahr showed slides and paintings to illustrate "Some Fijian Birds in Captivity." Sir Philip first visited the Fiji Islands in 1910, and during a stay of fifteen months had considerable experience in keeping some of the native birds. Several species were successfully brought home to England ; amongst which the Ruffed Lory, the Taviuni Parrakeet, and Peale's Parrot Finch were the first brought alive to this country. Sir Philip again visited the Islands in 1950, and described the vast changes since his previous visit. Due to the depredations of the introduced mongoose some species were now on the point of extinction, others had changed their nesting habits.

The audience signified by its sustained applause that it had greatly appreciated Sir Philip's graphic account.

ARTHUR A. PRESTWICH,
Hon. Secretary.

REVIEW

BIRD-RINGING. The Art of Bird Study by Individual Marking. By R. M. Lockley and Rosemary Russell. Messrs. Crosby Lockwood and Son, Ltd., London. 1953. Price 9*d*. 6*d*. net.

This is an attractively presented little book, and contains chapters on " The History of Bird Ringing ", " The Value of Bird Ringing ", " The Technique of Bird Ringing ", " Trapping Birds and Rings ", and " Records and Field Equipment ". It is written in an interesting and readable style, but it is unfortunate that the authors have not been more careful in checking their dates and other precise information. On page 6, for instance, the establishment of the Royal Hungarian Central Bureau for Ornithology is given as 1903, whereas this should have been 1908, and the date of the establishment of the Heligoland station as 1904 instead of 1909. Further, on the same page, reference is made to work done in Spain which is no doubt a mistake for work done in Portugal, and a distinguished Civil Servant is designated " Professor ", a title he has never possessed.

Moreover, it is rather surprising that though the authors acknowledge the " bibliographical assistance " given by Dr. W. Rydzewski, no acknowledgment is made to the extracts which have been taken from that author's paper " A historical review of bird marking " (*Dansk Ornithologisk Foreninings Tidsskrift*, May, 1951), which are given in the first chapter.

P. B-S.

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NOTES

Corrigendum

Page 32, line 27. For " Green-winged Malkoha " read " Green-billed Malkoha ".

The St. Thomas Conure

During the time the parrot ban was suspended many Conures with orange-yellow cheeks and orange circles round the eyes were imported. For reasons best-known to themselves the " trade " sold them as St. Thomas's Conures. Strangely, none appears to have questioned this name, although even a moment's thought would have made it obvious that this was very probably a misnomer—it being most unlikely that so many Conures could have come from an island the small size (32 square miles) of St. Thomas, one of the Virgin Islands.

While in England during the summer, Dr. Lendon saw specimens at the London Zoo, " *Darenth-Hulme*," and elsewhere, and immediately expressed his disagreement with the identification. The Doctor gave it as his opinion that this co-called " St. Thomas's " was really the Yellow-cheeked Conure, *Aratinga pertinax chrysophrys*, of British Guiana, Surinam, and Cayenne : this identification has since been confirmed by reference to the skins at the British Museum (Natural History).

Dr. Lendon informs me that when on a recent visit to the Brookfield Zoo, Chicago, he saw a real St. Thomas Conure (*A. p. pertinax*). According to Karl Plath this bird, the survivor of four, is considered really rare.

Other vernacular names for *A. p. chrysophrys* are Golden-eyebrowed and Guiana Brown-throated Conure.

A. A. P.

SUSCEPTIBILITY OF MOUSTACHE PARRAKEETS TO PNEUMONIA

Further experience with the Moustache Parrakeet tends to confirm their susceptibility to pneumonia as discussed by Mr. Buckingham-Jones.

My birds were kept in unheated outdoor flights all the year round and appeared to be perfectly fit and happy at all times. They were not shut in at night, but I was always somewhat concerned for them in very cold weather as all *Psittacula* are vulnerable to frostbitten feet. I am afraid that at that time I felt it worth risking a loss as they were readily replaceable whilst the ban was raised on Parrot importation.

In the autumn, however, three birds were lost in cold, wet, changeable weather. The first was a hen found dead on the floor of the flight, but as a considerable disturbance had been heard during the night with owls, it was assumed that this was a result and no post-mortem was made. The second and third were both cocks and had precisely the same symptoms and result. Neither bird was thought to be ill but just doubtful about nine o'clock in the morning, they were both watched almost continuously for a couple of hours when it was decided to bring them in as a precaution. One bird sat on the perch all day, ate nothing, looked better late at night, and was dead early the next morning. The other bird seemed to collapse whilst his cage was being warmed up and although he was only a doubtful bird when I went for the cage, ten minutes later he was on the floor of the flight in a pretty bad way and died in about four hours.

It would appear, therefore, that these birds are susceptible to pneumonia, but are also extremely resistant to it in displaying any symptoms thus making diagnosis almost impossible. The only remedy would appear to be prevention, as a cure is almost out of the question at so short notice. Pneumonia in birds is almost always incurable. I have tried penicillin, but this is useless if administered orally, it may have a chance if injected into the blood by hypodermic. Recently, however, I have heard of cures being effected with aureomycin on the continent (administered orally), I have also tried it myself on two cases and both have been successfully saved. It must be admitted that the steps were taken on suspicion rather than diagnosis, so that although my birds recovered I cannot guarantee that they ever actually had pneumonia. Perhaps some of our medical members can give further authentic information on these possibilities.

E. N. T. VANE.

* * *

CORRESPONDENCE

PRINCESS OF WALES OR QUEEN ALEXANDRA PARRAKEETS

I notice that in his interesting account of the National Show, Mr. Seth-Smith deplores the fact that people will persist in referring to what he prefers to call the Queen Alexandra Parrakeet, as the Princess of Wales Parrakeet, since, as he rightly points out, England has had more than one Princess of Wales, but only one Queen Alexandra.

Unfortunately, however, were his suggestion adopted, and taking into account people's incurable habit of abbreviating names (Budgerigar . . . Budgie . . . Budge !), I am afraid it would be no time at all before the Queen Alexandra Parrakeet became simply the Alexandra Parrakeet.

This, in turn, would lead to endless confusion between the Alexandra Parrakeet and the much commoner Alexandrine Parrakeet, and one can well imagine the acrimonious correspondence that would ensue if somebody—possibly in all innocence—sold one of the latter as one of the former !

I have sometimes heard Princess of Wales Parrakeets referred to as Princess Parrakeets, but this does not matter so much, as there is no other Princess Parrakeet, nor any with a name at all resembling it.

E. J. BOOSEY.

BRAMBLETYE,
KESTON, KENT.

Mr. Seth-Smith, in his National Show report, says : " I wish they would not persist in calling this bird the ' Princess of Wales Parrakeet '."

To be logical and correct one must call a bird by the name originally given to it. This bird was named in 1862 and was therefore known by no other name until this lady became Queen some forty years later. The fact that the title persists as the most commonly used name for this bird to-day speaks for itself.

Surely it is not suggested that every time a title of address is altered for an individual, the name given to anything as a mark of respect to that individual must also be changed in scientific records. Otherwise we should now have to call the Stanley Parrakeet the Derbyan, since it was named after the Earl of Derby who was then Stanley, and what would happen to the other Derbyan Parrakeet. The Mrs. Johnstone Lorikeet might have to become an entirely different bird if that lady had happened to re-marry. A newly discovered species might be called the Cornwall Parrakeet, later on this might be changed to the Prince of Wales Parrakeet, and even still later to the King Charles Parrakeet. Let us be reasonable and stick to the most popular and proper name, " Princess of Wales," in any case the scientific record retains the essential dedication " *alexandriae* ".

E. N. T. VANE.

FAIRACRE,
BALLINGER,
GREAT MISSENDEN, BUCKS.

BREEDING OF RED-BELLIED CONURES (*Pyrrhura vittata*)

I am requested by Sir Edward Hallstrom to inform you that the birds he bred were Red-bellied Conures (*Pyrrhura vittata*) as described on page 133 of *Parrots and Parrot-like Birds*, by the Marquess of Tavistock.

The following notes, as dictated by Sir Edward on 8th February, 1954, no doubt will be of interest to you and the Society members :—

These Conures were bred in an aviary approximately 3 feet wide, 6 feet high, and 16 feet long, with one end covered, back, sides, and top, for about 3 feet, and a cover over the front of the aviary for about 3 feet to protect the food and water containers. The nest used was an upright one of the grandfather clock type. Three eggs were laid but only one chick was reared and this is now about twelve months old.

You may also be interested to know that during the last twelve months Sir Edward has bred the following : 2 Musschenbroek's Parrots, 1 Double-eyed Dwarf Parrot, 8 Eclectus, 1 Alexandrine × Indian-Ringneck hybrid, 10 Hooded × Many-coloured hybrids, 6 Hooded Parrots, 1 Lesser Sulphur-crested Cockatoo, 1 Blue-eyed Cockatoo (New Britain), 60 to 70 African Lovebirds, such as the Peach-faced, Masked, Black-cheeked, Fischers, as well as quite a number of lutino Nyassas, and in addition to these, of course, Sir Edward has bred quite a number of the commoner species such as Rosellas, Pennants, Scarlet-chested, Turquoisines, Red-collared Lorikeets, etc.

Many of the young cock Hooded–Many-coloured hybrids are almost identical with the Paradise Parrakeet, but unfortunately there has only been one female, which is at present mated to an unrelated cock bird, and it will be very interesting to see the results—if any.

The African Grey Parrots have had chicks and have reared them almost to maturity. These birds nested in a vertical hollow log about 2 ft. 6 in. down from the top, with wire netting on the side to enable the birds to get down easily, but it would almost appear that the birds had jumped down on the young birds and killed them.

The Lesser Sulphur-crested Cockatoos also damaged the wing of one of their youngsters by jumping on them, but all nests are now on a slope to ensure that the birds walk down and do not jump down on the youngsters.

At the present time there is a Yellow-tailed Black Cockatoo sitting on an egg and Sir Edward hopes that the young bird will appear within the next few days.

The Blue-eyed New Britain Cockatoos have bred in a heavy box-type nest and have only had one chick at a time, although two eggs were laid on several occasions. It was noted that the male sat on the egg most of the time, but occasionally both birds were in the nest, but on the majority of occasions the hen was the only one seen flying in the aviary.

The Musschenbroek's and Double-eyed Dwarf Parrots were most difficult to rear. Although the Musschenbroek's, when first caught, is a seed-eater, it cannot rear the youngsters on seed, and after losing several young birds I drove nails into the perches nearest the door, and every morning pushed an apple on to each nail, and the birds were thus able to feed their young ones with soft food. It was also impossible to encourage the Musschenbroek's to go to the floor of the aviary for water, and as a result the water was put on the same level as the food—about 5 feet from the ground. Many young Double-eyed Dwarf Parrots were hatched and lost before I was able to give them food on which they could rear their young. Millet or Pannicium seed that had been boiled with figs and syrup solved the problem. This also created another problem —ants. Although I have about 10 pairs of Double-eyed Dwarf Parrots the food difficulty is such that I have only two pairs set up for breeding. Double-eyed Dwarf Parrots will eat apples the same as described for the Musschenbroek's, and they will also eat canary and sunflower seed, but destroy many more kernels than they eat.

At the moment there are two pairs of Macaws on eggs. The Blue and Yellow and the Red and Yellow. The Red and Yellow have reared five youngsters this year, but the Blue and Yellow have not yet been successful in rearing their youngsters.

About February each year for the last two years the Hyacinthine Macaws have gone to nest, and have been observed mating. The eggs appear to have been fertile, but neither clutch has hatched. A pair of young Hyacinthine Macaws are very interested in one another and spend a considerable amount of time in the nest.

At the moment a pair of Blue and Yellow Macaws have three babies, whilst a pair of Red and Yellow are sitting on eggs.

WALTER H. TURNER.

462–4 WILLOUGHBY ROAD,
WILLOUGHBY,
SYDNEY, AUSTRALIA.

BREEDING RESULTS FOR 1953 AT HILLINGDON

Regarding breeding results for 1953, three pairs of Plumheads laid sixteen eggs between them; unfortunately these were all spoilt at various times during incubation by cats getting on top of the flights and disturbing the hens. Bourkes reared five very nice young and Cockatiels reared four; in the case of Many-colours, seven eggs were laid but no attempt was made to incubate. Elegants had two clutches of five eggs, both being infertile, likewise the Princess of Wales had eight eggs, found to be infertile after sitting the full time. A yellow Redrump also had four eggs but was disturbed whilst sitting. Stanleys, Barrabands, and Rock Peplars all spent a great deal of time in their nest-boxes but did not lay.

Good fortune, however, was registered by having a brood of three Painted Finches reared; all turned out cocks, a second pair nested and laid two clutches of five eggs but made no attempt to sit. One pair of Gouldians, Black-headed cock and Red-headed hen, nested, reared two very fine youngsters and carried on in the same nest without a break, producing two more; eight clear eggs were found when clearing out their nest-box; incidentally, this pair have gone to nest again and have youngsters. Three other pairs did precisely nothing towards increasing the Gouldian population.

So much for 1953, what of 1954?

As planned, it is up to two pairs of Plumheads, two pairs of Many-colours, two pairs of Bourkes, two pairs of Rock Peplars, a pair of Cockatiels, a pair of Moustache, I hope to emulate friend Vane's success with these attractive and amusing birds. A pair of Princess of Wales and Barrabands, and finally four pairs of Gouldians plus youngsters, and two pairs of Painted Finches; not a terrific collection by some standards but enough to cope with in a limited leisure.

J. H. REAY.

CRANMORE,
THE CLOSE,
HILLINGDON, MIDDLESEX.

THE AVICULTURAL SOCIETY RECEIPTS AND PAYMENTS ACCOUNT

Year ended 31st December, 1953.

RECEIPTS

	£ s. d.	£ s. d.
To Balance at Bank, 1st January, 1953		1,104 10 10
„ Ordinary subscriptions		
Arrears	39 12 3	
Current	698 5 2	
In advance	115 15 0	
		853 12 5
„ Life membership subscriptions		75 10 0
„ Avicultural Society of America		
Balance, 1952	290 13 0	
1953	149 0 0	
		439 13 0
„ Donations		21 10 6
„ Sales of Magazines		156 0 0
„ Sales of *Aviculture*		29 7 0
„ Sales of *Australian Parrots in Captivity*		47 5 2
„ Sales of surplus books		86 10 0
„ Sales of waterfowl rings		2 6 6
„ Sales, Miscellaneous		15 4
„ Advertisements		3 17 7
„ Dividends		15 13 6
		£2,836 1 10

PAYMENTS

	£ s. d.
By Printing of Magazine	890 8 3
„ Coloured plates	171 1 4
„ Authors' separates	9 2 6
„ Sundry printing and stationery	64 7 5
„ Printer's charges and expenses	7 14 4
„ Honorarium to Editor	100 0 0
„ Secretarial	52 0 0
„ Preparation of Index	10 10 0
„ Newman Library insurance	2 5 0
„ Roneo filing cabinet	15 8 7
„ Advertisements	34 18 9
„ Expenses at Council Meetings	3 5 0
„ Postages	27 17 4
„ Bank charges	12 6
„ Miscellaneous expenditure	25 14 4
„ Purchase of Defence Bonds	600 0 0
	2,015 5 4
„ Balance at Bank, 31st December, 1953	820 16 6
	£2,836 1 10

I have examined the above Account with the books and vouchers of the Society and certify it to be in accordance therewith. I have verified the Bank Balance.

LONDON.
19th February, 1954.

J. WATKIN RICHARDS, *Certified Accountant.* } *Hon. Auditor.*

CANDIDATES FOR ELECTION

B. BELFIELD, Alma House, Dalton, Parbold, Nr. Wigan, Lancs. Proposed by Miss K. Bonner.

Right Hon. the Viscount CHETWYND, T.D., F.S.A., F.Z.S., Eastbury House, Nr. Newbury, Berks. Proposed by E. J. Boosey.

W. G. CONWAY, St. Louis Zoological Park, St. Louis 10, Mo., U.S.A. Proposed by Karl Plath.

T. O. EVANS, 12 Bedford Gardens, Luton, Beds. Proposed by Miss K. Bonner.

K. R. E. GREWCOCK, 36 Station Road, Marston Green, Nr. Birmingham. Proposed by A. A. Prestwich.

W. KLÖVEKORN, Pfalzdorferstrasse 61, (22a) Goch–Rhld, Germany, British Zone. Proposed by A. A. Prestwich.

W. MANKEL, Bahnhofstrasse 44, Dörnigheim am Main, Germany. Proposed by G. A. Gjessing.

Mrs. K. M. MCKEE, 2044 Riverside Avenue, Trail, B.C., Canada. Proposed by Miss K. Bonner.

J. J. MILLINGTON, Barn Close, Bushby, Leicestershire. Proposed by P. A. Birch.

T. F. E. NIXON, "Honeystones," Leverington, Wisbech, Cambs. Proposed by Miss K. Bonner.

F. PRIP, Sorrentovej 48, Copenhagen S., Denmark. Proposed by Miss K. Bonner.

G. RANDAU, Avenida Rui Barbosa 500, Recife, Pernambuco, Brazil. Proposed by T. Crewes.

Miss A. REED, 941 Chelsea Cloisters, Sloane Avenue, London, S.W. 3. Proposed by Miss K. Bonner.

H. RUBNER, Kunstmühle, Erlangen-Bruck, Bavaria, Germany. Proposed by C. af Enehjelm.

A. RUTGERS, Boeckenrode, Joppe, Holland. Proposed by Miss K. Bonner.

K. M. SCAMELL, 1 Marine Crescent, North Drive, Great Yarmouth. Proposed by Mrs. K. M. Scamell.

Dr. H. SCHUSTER, 38 Rue V. Hugo, Foulquemont (Moselle), France. Proposed by A. A. Prestwich.

F. SMITH, 12 Nabs Head Lane, Samlesbury, Nr. Preston, Lancs. Proposed by Miss K. Bonner.

L. C. P. WEALE, 13 Overton Road, Southgate, N. 14. Proposed by A. A. Prestwich.

H. WILSON, 10 Leslie Avenue, Thornton, Blackpool, Lancs. Proposed by Miss K. Bonner.

NEW MEMBERS

The forty-eight Candidates for Election, proposed in the January–February, 1954, number of the AVICULTURAL MAGAZINE, were duly elected members of the Society.

CHANGES OF ADDRESS

A. DOSSCHE, to rue de l'Avenir 38, Mont-St. Amand, Gand, Belgium.

P. FOSTER, to 20 Leicester Avenue, Timperley, Cheshire.

C. P. GUY, to High Lodge, Lamorna Bird Farm, Combe in Teignhead, S. Devon.

KARL PLATH, to 110 S. Wesley Avenue, Oak Park, Ill., U.S.A.

MRS. S. PEASE, to R.R.1, Dolgeville, New York, U.S.A.

R. R. P. VAN DER MARK, to De Kweekhoeve, Van Helvoortlaan 31, Woerden, Holland.

R. I. WHITE, to 2210 Mountain Blvd., Oakland, Calif., U.S.A.

DONATION

(Coloured Plate Fund)

B. LITTLECHILD . . 10s.

AMENDED ADDRESS

Major J. FINDLAY, D.S.O., F.R.Z.S.; "Cosie Brae," West Cults, Aberdeenshire.

MEMBERS' ADVERTISEMENTS

The charge for Members' advertisements is ONE PENNY PER WORD. *Payment must accompany the advertisement, which must be sent on or before the 15th of the month to* A. A. PRESTWICH, 61 CHASE ROAD, OAKWOOD, N. 14. *All members of the Society are entitled to use this column, but the Council reserves the right to refuse any advertisements they consider unsuitable.*

WANTED

Cayley, *Australian Parrots.*—R. G. KIRKHAM, "The Gables," Wynnsward Park, Clonskeagh, Co. Dublin, Eire.

Copies of AVICULTURAL MAGAZINE, 1952, January–February and March–April numbers.—Hon. Secretary, 61 Chase Road, Oakwood, N. 14.

AVICULTURAL MAGAZINE, 1923–1927 inclusive.—J. H. REAY, Cranmore, The Close, Hillingdon, Middx.

FOR SALE

Several pairs of Golden Pheasants, one and two years old.—A. J. CLARKE, Foxhole Cottage, Llanbedrog, Nr. Pwllheli, Caerns.

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